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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/721,974

11/24/2003

Mario Au

5646-124

6997

20792

7590

06/21/2006

MYERS BIGEL SIBLEY & SAJOVEC

PO BOX 37428

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EXAMINER

PORTKA, GARY J

ART UNIT

PAPER NUMBER

2188

DATE MAILED: 06/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/721,974

Applicant(s)

AU ET AL.

Examiner

Gary J. Portka

Art Unit

2188

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6 and 9-13 is/are allowed.
- 6) ☒ Claim(s) 7 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/24/03, 11/17/04, 2/11/05, AND 10/13/05</u> | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 1-13 are presented for examination.

#### ***Information Disclosure Statement***

2. The information disclosure statements (IDS) submitted on November 24, 2003, November 17, 2004, February 11, 2005, and October 13, 2005 were considered by the examiner.

#### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 7 is rejected under 35 U.S.C. 102(a) as being anticipated by IDT, "3.3V CMOS Sync FIFO".
5. As to claim 7, IDT discloses on page 23 a plurality of FIFO memory controller chips that collectively support standard mode operation when cascaded in a depth expansion configuration. See arguments below for clarification.
6. Claim 7 is rejected under 35 U.S.C. 102(b) as being anticipated by Steinmetz et al., US 6,055,588.
7. As to claim 7, Steinmetz discloses in Fig. 1b, and at col. 3 line 41 to col. 4 line 7, a plurality of FIFO memory controller chips that collectively support standard mode operation when cascaded in a depth expansion configuration. It is noted that a "not

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empty” or a “not full” flag may be considered equal to a de-asserted “empty” or “full” flag, respectively.

### ***Response to Arguments***

8. Applicant's arguments filed in the equivalent international application have been fully considered but they are not persuasive. Applicant responded to the rejection on IDT therein, and as repeated hereinabove, by stating that IDT does not show a cascade, which requires a series of components, the output of each connected to the input of the next.

9. First, it is argued that IDT does show a cascade to the extent claimed and argued by Applicant, since it shows a series of components (the three FIFO chips) with outputs of each (e.g., W XO or R XO) connected to the inputs of the next (W XI or R XI).

10. Second, Park, US 5,640,515 is cited as evidence of those of ordinary skill in the art referring to a configuration such as in IDT as cascaded (see Park Abstract and Fig. 1).

### ***Allowable Subject Matter***

11. Claims 1-6 and 9-13 are allowed.

12. Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Patent No:

2005/0041450	FIFO with depth expansion in FWFT mode.
6,907,479	FIFO apparently having the equivalent of a hybrid mode (full flag on write side, output valid flag on read side).
6,442,657	Flag generation for FIFO with standard mode and depth expansion.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary J. Portka whose telephone number is (571) 272-4211. The examiner can normally be reached on M-F 9:30 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan can be reached on (571) 272-4210. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Gary J Portka  
Primary Examiner  
Art Unit 2188

June 15, 2006

A handwritten signature in black ink, reading "Gary J Portka". The signature is written in a cursive style with a large, stylized "G" and "P".

**GARY PORTKA  
PRIMARY EXAMINER**